



HELP

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YOU CAN ALSO WRITE TO US AT:

Help
Computer Shopper
30 Cleveland Street
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HELPFILE

Downloading spam is using up my minutes

Q My internet connection is via dial-up as I don't use the internet much. The problem that I have is the quantity of unsolicited email traffic that is downloaded to my computer. I've configured Outlook Express so that most of the unsolicited emails go directly into the Delete folder, but it is annoying to have my online time taken up with 20 or more rubbish emails downloading each day. One day I had over 70.

Could you advise me which ISPs offer dial-up services that I can use with Outlook Express, and do you know of any that can prevent unsolicited emails getting to my computer in the first place?

John Harbidge, john@cjhco.fsnet.co.uk

A We all suffer from a deluge of unwanted email. Spam now accounts for over 85 per cent of all email and spam senders are trying increasing numbers of tricks to defeat anti-spam software. Many ISPs offer some kind of spam-filtering service but usually these are not very effective. The new tricks spammers use make them even less useful. Many of the anti-spam products found in integrated internet security packages are worse than useless and misclassify significant numbers of genuine mail as spam while letting much spam through.

There are some very effective anti-spam programs that can be used with Outlook or Outlook Express. They typically eliminate around 98 per cent of spam with very few false positives. However, most don't work with other email programs. Among the best are Cloudmark Desktop (formerly called SpamNet), which won our Best Buy award in *Labs, Shopper* December 2006, Sunbelt iHateSpam and Allume SpamCatcher. Most of them have free trial versions, so you can see which you like best.

Unfortunately, the above products download all email messages to your computer before they can decide which are spam. Although it is not quite as accurate, you may want to try the free MailWasher program from www.mailwasher.net. This downloads just the headers from your ISP's mail server, marks which ones it thinks are spam and allows you to delete unwanted email without downloading it.

You can then download the rest of the email using Outlook Express or any other mail client.

There is also a MailWasher Pro version for US \$37 (around £20), which uses a database of the messages other MailWasher users think are spam to identify new spam as it arises. It also checks DNS blacklists of servers known to be sending spam, and can also handle AOL, Hotmail and MSN mail accounts in addition to POP3-based email systems.

Finally, consider switching to an email provider with better spam-filtering facilities. While most ISPs offering dial-up services support Outlook Express and claim to have anti-spam filtering, the free filtering they use is 50 per cent effective at best. Unfortunately, more accurate spam filtering depends on the user telling the service which messages have been misclassified. It can then use a statistical technique called Bayesian Inference to improve its predictions. This feedback is difficult unless you use a web-based mail service, which is not ideal if you use a pay-as-you-go dial-up service. The alternative is to download all messages, including potential spam, to your PC.

Postmaster (www.postmaster.co.uk) offers a free and paid service for webmail accounts and has made a big commitment to blocking spam, including tracking down spammers and taking legal action against them. However, the best spam filtering we have found is absolutely free and comes with Google Mail.

We have transferred a mail account that received a lot of spam to Google, which is currently beta-testing a service that hosts email for your own domain. For the first month or so you need to train it by marking any spam it allows through and checking for genuine mail falsely marked as spam. It learns from your corrections and won't make the same mistakes again. After the first month, we found it identified and blocked 1,500 spam messages a month, allowing fewer than 50 through. This is around 97 per cent accuracy, with hardly any genuine mail being blocked.

It is best to use the webmail interface while teaching Google Mail what you consider spam and what isn't. Once trained, you can enable POP3 access free of charge and then download email to Outlook Express, or any other email program.

Feedback Email full of undelivered, unknown messages



In *Helpfile, Shopper* April 2007 you reported on a problem about spammers using Freeserve/Wanadoo/Orange customers' addresses. I had the same problem for three months. The online help claims that there's nothing the company can do, and I rang customer support to ask about closing down the account and re-opening under a new name.

The operative sounded rather fatalistic about the problem, but said she would "make a note on my account records". Within two days, the problem stopped permanently. I would definitely give

customer support a try. It was worth the wait in the queue.

Philip Street, member@streethome.freeserve.co.uk

A An excellent result. Perhaps your spam filter settings were tweaked, although that does not usually make much difference. It could just have been coincidence that the spammer moved on to using someone else's domain name. Perhaps the Orange abuse department took the trouble to contact the spammer's ISP, but most readers haven't felt the benefit.

Feedback TalkTalk broadband problem



I read with interest about the TalkTalk broadband problem in *Helpfile, Shopper* March 2007. I think that TalkTalk

made a big mistake choosing foreign call centres, especially those with workers with no expertise in even trying to sort out problems. One of the most frustrating things I experienced was the wait for an answer, only to have the call terminated before it had finished. This happened to me over 25 times.

While I am not a big TalkTalk fan, my faith in the company was rewarded when I persevered and eventually got through to a UK-based technician. He advised me to set my maximum transmission unit (MTU) to his advised setting, which is dependent on where you live in relation to the exchange and your operating system.

I needed to access the settings on my modem and change them. I also had to download DrTCP to my PC and set the MTU to exactly the same figure. If you have a network, all the PCs should be set to the same. I set mine to 1,400 and it worked fine.

TalkTalk does not have the monopoly on problems, it is just one of the cheapest services that has them.

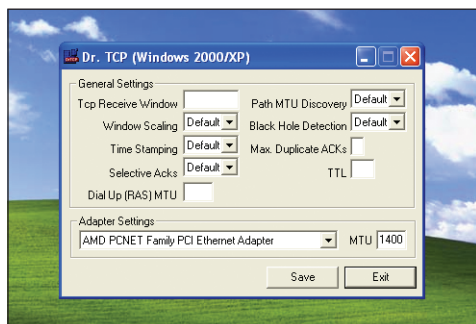
Jim Chinnery, arbuthnot_nodsworthy@yahoo.co.uk

A I'm not going to let TalkTalk get out of it that easily but yes, it seems that setting an MTU of 1,400 does solve a lot of – though not all – irritating TalkTalk problems. Read <http://tinyurl.com/27yw77>, which indicates that many problems, including being unable to connect to Hotmail, were solved by reducing the MTU to 1,400.

But why does this work? Ethernet has a standard MTU size of 1,500, which is the maximum size of data packet used to move information across the network. All DSL connections add a few bytes of information to each packet. For PPPoA/VCMux connections, which is the most common type used in the UK, the optimal MTU is 1,478.

There are several reasons why there might be a few bytes of extra overhead, but usually these don't cause any problems. If your MTU value is a bit too high, you will just get a low level of inefficiency as packets have to be broken up and then reassembled. If a website is completely inaccessible unless you change the setting from 1,478 to 1,400, that suggests there are some serious network configuration issues at TalkTalk. The company should fix its faulty network configuration rather than telling all its users to reduce the MTU size. And what of all the users who didn't have time to dial TalkTalk support repeatedly?

Incidentally, the required MTU size should not depend on your distance to the telephone exchange, although it might be affected by the make of DSLAM equipment used in the local exchange.



▲ The easiest way to change the MTU is to use the DrTCP utility



▲ This Billion modem router supports ADSL2+ to get the fastest connection speeds

The easiest way to change the MTU is to use the DrTCP utility from www.dslreports.com/drtcp. Microsoft has an article on changing MTU size in Windows XP at <http://support.microsoft.com/?scid=283165>.

HARDWARE COMPATIBILITY

Another common cause of connectivity problems with TalkTalk (and some other DSL providers) has been compatibility problems with the new equipment it installs in exchanges. BT spent several years troubleshooting issues with its DSL equipment and identifying compatibility problems, and all makes of consumer ADSL modems and routers sold in the UK have been thoroughly tested with BT equipment.

However, with the advent of local loop unbundling (LLU), broadband suppliers have been able to use suppliers other than BT Wholesale. These suppliers may still be learning about certain incompatibility problems. In particular, most suppliers have used adaptive rate technology, where their equipment checks line conditions and tries to connect at the fastest rate possible, which can be up to 8Gbit/s on good lines. This needs an ADSL modem or router that supports ADSL2+. The plain ADSL2 won't do. You may need to get a firmware update from the maker of your modem or router. ADSL2+ may also be referred to as ADSL2Plus or by its ITU designation ITU G.992.5.

As with early 56K dial-up modems, where some modems did not work well with some makes of ISP equipment, this speed-adjustment process has been prone to problems, and differences between various makes of DSLAM equipment may confuse some brands of ADSL modems and routers. For example, many users of the Netgear DG834PN router have complained about connectivity problems on TalkTalk since the upgrade to 8Gbit/s, even though the latest firmware for this router claims ADSL2+ compatibility.

Since BT has still to roll out its ADSL2+ technology, it is currently available only through LLU providers. These are typically wholesalers, such as Tiscali, which rent equipment to providers such as PlusNet. TalkTalk is owned by Carphone Warehouse, which has its own LLU equipment.

As different LLU companies have chosen different makes of equipment, some compatibility issues can arise when switching from one company to another. If your ISP switches to a different wholesale provider, you can be affected by compatibility issues even if you don't move to a new broadband provider.

For many users, TalkTalk works just fine and gives excellent value. However, many have had problems where it has not worked and they have had difficulty getting through to technical support. Here TalkTalk has been a victim of its own success. It is possible that its use of foreign telephone support services is not just a cost-saving measure but was dictated by the need to get lots of support lines active quickly.

Your experts

HELPPFILE

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Paul Mullen

With 27 years of PC experience as a power user, programmer and IT consultant, Paul Mullen answers all PC problems, tackling hardware, system and security issues.



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SOFTWARE HELP

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Database developer and productivity expert Kay Ewbank offers help with office applications.



Ben Pitt

Professional musician and keen photographer Ben Pitt gives advice on using creative software.



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Labs Editor Tom Royal recommends the best products for your specific requirements.



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Please contact the relevant department at the email address listed above. You can also write to us at:

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Please try to give full details of your problem. We need an email address or daytime and evening telephone numbers in case we need more information.

Although the policy of *Computer Shopper* is not to publish readers' email addresses, we include them in Help so that other readers with experience of similar problems can share their solution (please also cc any comments to the relevant Help department above). If you would prefer not to have your email address published, please say so.

Belkin range extender problems

Q I have been using a Belkin wireless router (F5D7632) and have just tried to add a Belkin range extender (F5D7130). With the SSID set the same on both, and all security settings turned off, the two work in harmony and my network range is extended greatly.

But once I use a wired connection and try to enable WEP security, I lose contact with the range extender and, if my notebook indicates a connection with the network, it seems to get stuck on "acquiring IP address" and I have "limited or no connection". Even though I have a full signal, I cannot go online.

After spending nearly four hours talking to Belkin support over several calls, the company decided my range extender should be changed. The new one has now arrived and exhibits the same problem. Surely I should be able to have a secure network with these two products from the same manufacturer?

Nic Browning, njbrowning@gmail.com

A The F5D7130, and its revised model the F5D7132, is a wireless access point that can also be used as a wireless repeater or range extender. But while Belkin makes good network equipment, the documentation for most of its networking products is abysmal. The manual for this one does not cover how to use it as a range extender and the separate quick setup guide for the range extender doesn't mention security.

When you check the web for this product you will find lots of user reviews confirming that they found the documentation hard to understand and that the advice they received from Belkin technical support was, in many cases, just as useless.

With all wireless networks, if you can run an Ethernet cable from the router to where you want the wireless access point, you'll get good results. It is better to do this than to use a wireless repeater. By running an Ethernet cable, you can position the two wireless access points (or router and access point) to minimise signal overlap. The access point can then be configured to use a different wireless channel so that the signals don't interfere with each other. Configuration is also much easier.

When you can't run Ethernet cable, you have to set up the access point as a repeater, which is another term for a range extender. Repeaters have to be placed somewhere they can receive a strong signal from the router because repeating a weak signal is pointless.

Ideally you would position the repeater about halfway between the router and the furthest point that you want to provide with wireless coverage. You can expect the effective range to be increased by about 50 per cent in that direction, at the cost of some speed reduction due to interference in the area between the two access points.

Repeaters have to be set to use the same wireless channel as the wireless router and hence always cause some interference. The same channel is used to provide a wireless bridge to pass information between the router and repeater, which uses up some of the network's capacity. So you won't get as much signal strength or speed as you might expect.

In addition, setting up a repeater is almost always very tricky. While some Belkin access points claim to have a one-button repeater setup, this can be used only if you disable wireless security.

CONFIGURING THE ACCESS POINT

Most wireless access points come with a utility that can configure them over an Ethernet network. Yours can only be configured using a wireless connection connected to the access point. This is trickier because the access point's DHCP server is disabled by default. The access point has a default IP address of 192.168.2.254 so to connect to it you may need to set your notebook's wireless connection to use a fixed IP address in the same subnet. For example, you could use 192.168.2.200 for the notebook's IP address and 255.255.255.0 for its subnet mask.

You can then connect to the access point using a web browser. Type in the access point's web address <http://192.168.2.254/> and, when the status page appears, click the Logon button. Initially there is no password and you should set one as soon as possible. A danger with wireless access is that you may lose the connection and, if this happens, the access point locks you out from reconnecting for a default period of 10 minutes. On the password screen, you have a chance to reduce this timeout period to one minute and doing so can avoid frustrating delays. You can then get to the access point's settings, including its security mode.

To configure the unit as a range extender with wireless security, start with the factory default settings. Most routers have a small reset button that restores the default settings when pressed and held for a short time. Then set the security options for both the access point and the router using their web-based configuration

utilities. We strongly recommend WPA if this is available, but older equipment may only be able to use WEP encryption, which has a fundamental flaw: an eavesdropper can discover your encryption key just by listening for a few minutes.

You may need a firmware update to support WPA, and older computers using operating systems prior to Windows XP may have difficulty using WPA. Once you change security and restart the access point, you have to enter the security pass phrase or key to reconnect your notebook.

An additional security measure that is supported by all but the earliest firmware versions of this access point is to use MAC address filtering. Doing so allows only known computers to connect by specifying the MAC address of authorised computers' network adaptors. This has some flaws, too. It is easy to mistype a MAC address, or you may have to replace a broken wireless card and then find yourself unable to connect. Guests would not be able to connect to your network, either. Use MAC filtering only if WPA is not possible.

Once you have the device working as a secure access point, you can set it up as a range extender. To do this you need to make sure it uses the same wireless channel as the router. We suggest you leave it set to a different SSID to avoid confusion during testing. To use it as a range extender, you then have to set up a wireless bridge between the two devices.

BRIDGING THE DIVIDE

Some devices refer to Wireless Bridging, while others talk about Wireless Distribution Service (WDS). Both mean the same thing. While it is sometimes possible to implement bridging between different brands of equipment, lots of inconsistencies may prevent it working properly, so we suggest using range extenders only with routers of the same brand.

To get WDS working properly with Belkin equipment, you need to read the knowledge base article 2814, which can be found at www.belkin.com/support/kb/kb.asp?a=2814. The documentation doesn't make it clear, but you should set up a wireless bridge either by entering the MAC address of your router's wireless (WLAN) interface into the range extender, or the wireless MAC address of the range extender into the router. Routers have two different MAC addresses; the Wireless LAN MAC address, which you want, is not the same as the WAN MAC address printed on its label and viewable from the status screen. With a little luck, the range extender should then work.

Feedback Unable to access certain webpages

✉ I had the same problem with my Belkin G+ MIMO router as Pete Pritchard in *Helpfile*, *Shopper* April 2007, although I use Pipex as my ISP and the Firefox web browser. I couldn't use Windows Update and couldn't access certain sites including Microsoft, MySpace and others. Some online games didn't work, either. I had also had a previous Belkin router from which I copied most of the settings. I decided to

change the router's configuration. I had set the WAN connection type to PPPoE. Changing it to PPPoA did the trick. I hope this works for Pete.

Kirk Thomson, saltireblue@dsl.pipex.com

A It's amazing your initial setup worked at all. All British DSL providers use PPPoA to log in rather than the PPPoE standard in the USA. However, we've been told that BT equipment has been programmed to

accept PPPoE logins too. There's no guarantee LLU equipment will, though. Any router sold in the UK should have been modified to use PPPoA by default, but if someone accidentally flashed it with an update intended for the US version you might find the wrong option set as default.

PlusNet tells us that when it upgraded to a 8Mbit/s service, which involves switching from BT Wholesale to Tiscali-provided DSLAMs, users occasionally had routers set to PPPoE.

Vista is driving me crazy

Q I used the Windows Vista Upgrade Advisor to see if my computer would be compatible with Vista. It showed that all the internal and external hardware and software were suitable, though certain items such as my printer would require me to get updates from the maker's websites after installing Vista.

There was only one hardware item that it did not recognise, which was the Inventel wireless USB adaptor that had been supplied by Wanadoo. I was advised to contact either the manufacturer or the supplier. I searched the web to find the Inventel website, but I could not find anything.

I asked Orange, which took over Wanadoo, if there were any downloads for the adaptor but the only thing that it came up with was how to reinstall my existing disk once Vista was installed. So, after upgrading my computer to Windows Vista Home Premium Edition, I tried to reinstall the wireless adaptor. Unfortunately, it wouldn't recognise the driver.

I went to a computer store and asked about adaptors. I was told that the stock they have is still compatible only for pre-Vista versions of Windows and that I would still have to download the drivers for them to run on Vista.

I also looked on the websites where Orange gets its current adaptors, which are different to the one to that I am using. They state that the adaptors are compatible only with Windows XP. I phoned Orange and was sent another CD that had an Orange label on it but still had the same installation as the Wanadoo CD. What can I do?

L Bradbury, bradbury11152@fsmail.net

A Windows Vista is causing headaches for a lot of computer manufacturers, and even the big names are scrambling to update drivers for their hardware. A lot of people are finding that non-branded hardware (and even some major brands) is not supported under Vista at the moment.

There are a few cheap wireless adaptors that are sold under many different brand names. While they're cheap, getting support and drivers can be impossible. However, when a well-known name such as Wanadoo/Orange offers such equipment, you would expect it to arrange driver support for a reasonable number of years. After all, the launch of Windows Vista has been anticipated for many years.

Fortunately, wireless adaptors follow international standards such as IEEE 802.11g, so you can use any brand of USB wireless adaptor to connect to your existing router. Current models should have Windows Vista drivers and, if you buy from a local computer store rather than from a large chain, they may download these drivers and burn them to a CD for you.

Having said all that, the lack of Windows Vista driver support is causing lots of problems. I just had to help someone who had bought a brand new computer from Dell that came with Windows Vista (even though he had asked for Windows XP). Right out of the box an error message appeared saying a startup driver SonicSolutions DLA was incompatible with Vista. Dell Support said that the error must be due to incompatible software that the owner had installed and refused to help unless he ran the factory restore program and wiped out all his programs.



▲ Finding Vista drivers for anonymous USB devices can be a nightmare

The problem turned out to be with software that Dell had provided with this computer, and there was a patch to fix it on the Dell website. The user found that his Incredimail software was incompatible with Vista and that his Lexmark all-in-one printer wouldn't work, either. There are no simple solutions for these problems until the manufacturers update their software. Neither are there any announced dates for when these drivers might appear, even though the Lexmark printer is less than two years old.

To minimise problems, readers should stick with Windows XP until they can buy a new computer, or at least wait six months for new drivers to be released. Even with a new computer, check carefully that any external devices you plan to run with it, especially your printer, have Windows Vista drivers.

Graphics chipset issues with Vista

Q When I heard about Windows Vista and its fancy visual features such as Flip 3D and Aero, I thought it sounded appealing. My current computer is a Packard Bell Easynote L4 notebook, which I got in 2005. It has 1.25GB of RAM, a 1.60GHz Intel Centrino processor and an Intel 915GM graphics chipset using up to 128MB of system RAM.

However, when I used Microsoft's Vista Upgrade Advisor, I was disappointed. Instead of recommending Vista Ultimate Edition as I had hoped, it recommended the Business Edition (probably because I have Windows XP Professional Edition) and, even worse, it said that the Intel 915GM graphics chipset will not support the Aero experience, even though I know that this chip is DirectX 9-compatible.

I know you can't remove integrated graphics, but is it possible to add a more powerful chip to this notebook, such as ATI's Mobility Radeon X700 or Nvidia's GeForce Go 6600? If it is, how much would it cost?

*Daniel Johnson,
johnson.dantheman@googlemail.com*

A With most notebook computers, you are stuck with the graphics that were first installed. Only a few notebooks – usually the large desktop replacement systems – have separate graphics processor cards, and even then there may be only a limited range of replacement cards that will work, and you will receive little or no help from the manufacturer when you are attempting to upgrade.

The Aero interface is extremely graphics-intensive and needs to offload most of the graphics processing to a powerful graphics processor. Just being compatible with DirectX 9 is not enough. For example, the graphics processor must have at least 128MB of dedicated graphics memory. Your Intel-integrated graphics uses only shared memory.

Even if you do have a supported graphics processor, you will need to get the right drivers. Windows Vista uses WDDM drivers, and it appears that Intel has decided not to produce these for the 915GM chipset, although it has them for the very similar but later 945 chipset. Intel says that there are several hardware limitations with the 915 design that make it

very difficult to produce WDDM drivers for that particular chipset. Of course, Intel would love it if you rushed out to buy a new computer to run Windows Vista.

Drivers are a problem for the Nvidia GeForce Go series of cards, too. The problem here is that Nvidia says that it does not provide drivers for its Go range of processors and that users must obtain them from the notebook manufacturer. This means that if you upgrade the card that the computer manufacturer used, there will be no driver support. So a dedicated group of enthusiasts have started a website called www.laptopvideo2go.com, which explains how you can make another manufacturer's drivers run on your computer. There are also a few webpages that tell you how you can fool Aero into running on graphics processors that are supposed to be incompatible. However, we wouldn't recommend it.

The Windows Vista Upgrade Advisor accepts minimal hardware requirements. It may say that a system is fast enough to run Aero, but you might not like the experience. If you want fancy graphics, we recommend that you buy a new system designed for them.

I'm sent a virus almost every day

Q For many months, I have been targeted by an individual using a Hotmail email account. I am sent a virus virtually every day and it has been going on for the past six months. I've written to Microsoft and Hotmail, but both just ignore my emails.

The virus warning reads: "avast! Antivirus: Inbound message INFECTED: latest_price12-Feb-2007.zip\rwdydxlds.exe (Win32:Beagle-NK [Wrm]) was deleted from the message."

Clive Wright, email@clivewright.co.uk

A Although you are getting virus-infected emails that appear to come from someone with a Hotmail account, I can guarantee that they are not coming from Hotmail, and that the Hotmail address most likely does not exist or, if it does, belongs to an innocent victim of the virus.

Avast!, which is not the most accurate anti-virus program we have tested, is reporting that your emails are infected by a new variant of the Beagle (aka Bagle) worm. All Beagle/Bagle's many variants, like most current viruses, create a fake From: address and send infected emails

using their own SMTP email server program. Infected emails sent by this virus never come from a Microsoft server, which is where genuine Hotmail email always originates.

Since the From: and other sender information is false, and Hotmail probably never sent the email, complaining to Hotmail is pointless and your complaints will always be ignored. You also probably won't be able to identify the sender. But if you examine the email headers, which are normally hidden, you should be able to determine the IP address from which it was sent, and hence the ISP that operates from that address.

You may then be able to complain to the correct ISP by sending an email to the abuse contact. This will usually be abuse@domain-name, replacing 'domain-name' with the ISP's domain. The better ISPs will identify the user who used that IP address and tell them they have a virus. If the user doesn't fix the problem, the ISP cuts off service to the infected computers. The website at <http://dnsstuff.com> has tools to identify who operates a particular IP address.

You can automate this process and address the source of viruses and spam using SpamCop, a service available from www.spamcop.net. If you

copy and paste the complete email, including headers, SpamCop's system will read the header information for you and analyse where it really came from. It then offers to send complaints to the right person automatically, or tells you if it comes from an ISP that always ignores complaints.

To do this you have to get the header information, which your email reader normally hides from you. Microsoft's Outlook and Outlook Express products seem to make this particularly difficult, although there are lots of add-on programs that allow you to send the complete header information of suspect emails to SpamCop just by clicking a button. For more information, see www.spamcop.net/fom-serve/cache/285.html. If you use Outlook Express, the Forward as Attachment option will forward the complete email with all its original headers.

These days, the internet service that hosts your own domain should be able to scan for and remove virus-infected email messages. Most offer this service, but you often have to take steps to enable it, as it is sometimes turned off by default. Your domain is hosted by Fasthosts, which definitely offers virus scanning.

Standby mode fails

Q I leave my computer powered up all the time, but it turns off the monitor and hard disk after five minutes of no use. I'm told a more economical method to leave the PC always available is to put it in Standby mode. I have tried this using the Turn Off Computer button and get the error message headed System Standby Failed. It says: "The device driver for the 'Standard 101/102-Key or Microsoft Natural PS/2 Keyboard' device is preventing the machine entering standby. Please close all applications and try again. If the problem persists, you may need to update this driver."

I have closed all applications so nothing shows in Windows Task Manager and get the same message. I tried the Update Driver button for the keyboard and was told that it has the best driver for the device.

John Connor, jconnor@tiscali.co.uk

A The message is misleading; it is not the device driver for the keyboard that is at fault. Updating the keyboard driver is not going to help. Some third-party software has installed a kernel mode device driver that attaches to the i8042prt.sys keyboard driver, and which is not compatible with Windows XP.

The most common cause is Adobe Type Manager 4.0, which installs the Atmhlpr.sys driver. As a temporary fix, rename Atmhlpr.sys to Atmhlpr.xxx. You'll find this file in C:\Windows\System32\Drivers. This disables ATM's font smoothing; if you want this feature, you can enable Windows XP's own equivalent.

Another common cause is PGP disk version 6.xx, which installs the Pgpmmlock.sys and Pgpdisk.sys drivers. Later versions don't have this problem but they aren't available for free, either.

In certain circumstances, particularly if you are using the Microsoft Natural Keyboard driver,

it could be caused by a CD-writer plug-in for Windows Media Player. Using the standard keyboard driver usually cures this one.

If you can't find the cause then download Process Explorer from www.sysinternals.com. This shows a tremendous amount of detail about every process running. Highlight System in the top window and the bottom window will show a list of device drivers loaded. You should check any entries in this list that are not made by Microsoft. You should also note the date of each driver, because problems are most likely to be caused by old drivers written in 2002 or earlier.

More general advice on troubleshooting power-management issues that prevent Standby or Hibernate mode is contained in the Microsoft Knowledge Base articles at <http://support.microsoft.com/kb/907477> and <http://support.microsoft.com/kb/302414>.

Insufficient memory for Quake 4

Q Is there any way to put more RAM on my computer to play the latest games? I bought Quake 4 last week, not realising I did not have enough memory to play it. My computer is an iFriend with only 224MB of RAM, which is not enough to play the latest games.

Jason Mears, jason-mearsy@hotmail.com

A Quake 4 needs at least 512MB of memory, but lack of RAM is not your worst problem. You can easily add more.

Computer memory modules always have capacities that are powers of two, coming in sizes such as 32MB, 64MB, 128MB and 256MB. The only way to get 224MB of memory would be with a 32MB, 64MB and 128MB module, which is an unlikely combination. It's more likely that your computer actually has 256MB of RAM, of which 32MB is being used by an integrated graphics controller. Integrated graphics chips are generally very low-powered and that is what is preventing you playing games such as Quake 4.

Quake 4's minimum system requirements include a Pentium 4 2.0GHz or Athlon XP 2000+

processor, 512MB RAM and a 3D hardware accelerator card with 64MB video memory.

We suspect your PC is like the C2174, which would have a slower processor than the minimum listed above, too little RAM and, most seriously, only an integrated S3 Savage graphics processor with a maximum of 32MB of memory. While the C2174's specifications aren't well documented, we suspect there is no AGP slot to add a better graphics card. Even if there were, the computer falls short in so many areas, it would be better to replace it and give this one to someone who needs only to send email or surf the internet.

Unable to connect to my digital camera

Q In December 2005 I bought a Packard Bell Easynote L4014 notebook from PC World. It was working fine, until in October 2006 I got a Samsung Digimax V700 camera. There is now a problem when I connect up the camera, even if it is fully charged. It is recognised as a USB drive because it uses a memory card. When I connect the camera, it claims to be connected but then Windows says, "A USB Device attached to this computer has malfunctioned". The memory card works OK in my all-in-one printer.

In Device Manager, the camera is reported as an unknown device. I've tried plugging it into all four USB ports, removing and reinstalling the mass storage driver, and installing the latest chipset drivers. I have looked for a solution on Packard Bell's website and even have Windows XP with Service Pack 2 installed.

In *Helpfile, Shopper* October 2006, somebody said they had an Acer Ferrari notebook and had problems with a USB sound card. You said the Acer Ferrari uses a weak chipset and is prone to USB problems. Could you advise a solution, and tell me if my particular notebook uses a bad chipset?

Dan Johnson,
johnson.dantheman@googlemail.com

A Your notebook uses an Intel 915 GM chipset, so you don't share the same USB problems that the Acer Ferrari suffered from. Almost all Intel chipsets have very good USB support.

When you connect a digital camera to a USB port, it is the camera's USB circuitry that

is being recognised. In general, this will use different drivers from when you connect a USB card reader. We suspect your printer connects via USB, so your USB ports must be working. Perhaps updating the camera drivers would help? If not, you may have a hardware fault in the camera's USB circuitry. Does it work with another computer?

The most likely remaining cause is a conflict with the driver for some other USB mass-storage device. This happened more frequently with Windows 98, before Microsoft supplied generic USB mass-storage drivers, but some other USB device may have loaded a non-standard driver that is causing a conflict.

It's quite tricky to see all your installed device drivers. Windows hides installed drivers for devices that are not currently connected. Even if you choose the option in Device Manager's View menu called Show Hidden Devices, it shows only non-plug-and-play devices and printers. To show all installed devices, you must open a command prompt and open Device Manager as follows.

Click Start, Run, type cmd and press Enter. This opens a command-prompt window. In this window, type the following commands:

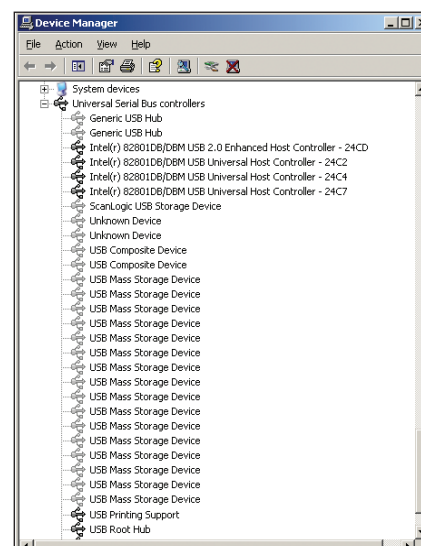
```
set devmgr_show_nonpresent_devices=1
start devmgmt.msc
```

This opens Device Manager. If you now go to the View menu and choose Show Hidden Devices, you'll see installed drivers for USB and any other devices not currently connected. You can then remove anything USB-related, reboot and allow Windows to detect the current devices.

Advanced users should note that this method displays only hidden devices when Device

Manager is started from the same command-prompt session in which you typed the set command. Typing the first command and then opening Device Manager in any other way does nothing special. To force the display of hidden devices all the time, you should set a global environment variable. Right-click My Computer, choose Properties, Advanced and then click on the Environment Variables button.

Don't worry too much about your camera not being recognised properly. Putting the memory card into an external card reader, such as the one built into your printer, usually gives much faster file transfers.



▲ Show hidden USB devices so you can remove them and let Windows detect your new hardware

Windows 98 won't start

Q I have a PC with two disk partitions. One FAT32 partition contains Windows XP and a second contains Windows 98. It is about three years old, but has run fine until now. Recently, running ScanDisk resulted in the screen freezing and the system crashing.

After this, when trying to boot to Windows 98, I receive an error message that says, "MPR.EXE: the program has preformed an illegal operation and will be closed down". Trying Safe Mode at startup resulted in Runonce and Explorer giving the same message.

I have tried to reinstall Windows 98, but the installation halts and says that Windows is already installed. My gut instinct is that somewhere down the line the virtual memory has been lost, and that Windows 98 will not load because of that fact.

If I deleted Windows 98 completely from the disk, would I be able to reinstall from the Windows 98 installation disc without losing all my saved data files that are on the disk, mostly in their own directories? I would appreciate your thoughts.

Christopher Jermy

A It's worrying that the problems started when running ScanDisk. When ScanDisk has a problem you should immediately suspect a hard disk error. Presumably your Windows XP installation still works? If so, back up your data immediately. Windows XP should be able to access data on the Windows 98 partition unless the file system is already too badly damaged.

The Windows XP chkdsk program may also be able to check your Windows 98 partition, although I much prefer the older ScanDisk program. You could also boot and run ScanDisk from a DOS floppy disk. Make sure the file system and disk surface are error-free before attempting to fix the Windows problems.

MPR.EXE handles multiple network protocols in Windows 95, 98 and Me. The Microsoft KB article 178084, which you can find at <http://support.microsoft.com/?id=178084>, lists a number of likely causes of this error, most of which are related to a damaged password file or user profile. It could also be due to a conflict between startup programs or device drivers, particularly networking drivers. However, that is unlikely unless you just installed some new hardware or software.

If it is a corrupt password file, the fix is easy. Search for *.pwl and delete any files you find. We suspect your problem is more serious, though. Your Windows 98 CD should have offered you the opportunity to do a repair install of Windows 98. If it didn't, there may be some extensive damage to the file system that is preventing it recognising the installation properly. If it refused to install because Windows was already installed, you must have an OEM version of Windows 98, which is one that says it was designed for use on a new computer only. Since you have installed Windows XP on a FAT32 partition, it may be that the Windows 98 disc sees the Windows XP installation and refuses to load.

To avoid this problem, delete or rename the Windows 98 files Win.com and Winver.exe. As Windows XP is installed on a FAT32 partition, you must also rename the Win.com and Winver.exe files in the Windows XP partition's Windows\System32 folder. It should then be possible to reinstall Windows 98 and, hopefully, it will let you install over the top of the existing Windows installation, keeping all settings. Once Windows 98 is reinstalled you should be able to rename the Windows XP partition's Win.com and Winver.exe files to their original names. ☑